## REMARKS

By this amendment, claims 1 and 2 are revised and arguments are set out below to place this application in condition for allowance. Currently, claims 1, 2, 8-10, 12, 15, and 18 are before the Examiner for consideration on their merits and claims 3-7, 11, 13, 14, 16, 17, 19, and 20 are withdrawn from consideration.

The revision to claims 1 and 2 is supported by the paragraph [0062] of Applicants' published patent application.

In review, claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) based on United States Patent No. 6,455,476 to Imai et al. (Imai) when modified by United States Patent No. 5,652,201 to Papay et al. and United States Patent No. 5,326,809 to Bott et al. (Bott). Claim 8, which defines a particular inorganic acid is rejected based on the three references listed above and United States Patent No. 4,533,481 to Jahnke.

By the revision to claims 1 and 2, Applicants submit that the rejection based on Imai, Papay, and Bott is now moot. The rejection to be addressed is the one based on Imai, Papay, Bott, and Jahnke.

In rejecting claims 1 and 2, the Examiner alleges that Imai teaches an extreme pressure additive that is in the range of the amount of inorganic acid amine salt required in the claims. The Examiner cites Imai to teach that the extreme pressure additive can be a phosphorous-containing additive, but admits that an amine salt of a phosphate is not disclosed.

The Examiner cites Papay to teach that amine salts of phosphorous acids are useful as phosphorous-containing extreme pressure agents. With the teachings of

Papay, the Examiner concludes that it would be obvious to use the amine salts of Papay in place of the phosphorous-containing extreme pressure agent of Imai.

The Examiner admits that the boric amine salt of claim 8 is not disclosed in Imai, Papay, or Bott. To cure this deficiency, the Examiner cites Jahnke to teach the use of corrosion inhibitors and that one corrosion inhibitor is a boric amine salt. The Examiner also notes that the suggested amount of the corrosion inhibitor in Jahnke is more than 0.01% and this overlaps the claimed range of the inorganic acid amine salt. The Examiner concludes that it would be obvious to include the boric amine salt of Jahnke in the lubricating composition of Imai for the purpose of inhibiting corrosion.

Turning back to the rejection, claims 1 and 2 now require that the inorganic amine salt is one of boric acid, molybdenum acid, or tungsten acid. This limitation moots the rejection of claims 1 and 2 since neither Imai nor Papay teach the use of the inorganic amine salt of claims 1 and 2. As detailed above, Imai teach a phosphorous-containing inorganic acid and Papay teaches a phosphoric amine salt. Thus, even if Imai were properly modified using the teachings of Papay, the limitations of claims 1 and 2 would still not be present and a *prima facie* case of obviousness would not exist.

Turning now to the use of Jahnke to modify Imai, Applicants submit that the Examiner's does not have the proper reasoning for adding the corrosion inhibitor of Jahnke to the composition of Imai.

First, the mere fact that a boric amine salt is known does not by itself provide a reason to modify Imai. Even after the United States Supreme Court's decision in the case of *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350 (April 30, 2007), the following legal principles are still valid, having been endorsed by the Supreme Court or having been

unaffected by its decision: (1) the USPTO still has the burden of proof on the issue of obviousness; (2) the USPTO must base its decision upon evidence, and it must **support its decision with articulated reasoning** (slip op. at 14); (3) **merely demonstrating that all elements of the claimed invention exist in the prior art is not sufficient to support a determination of obviousness** (slip op. at 14-15); (4) **hindsight has no place in an obviousness analysis** (slip op. at 17); and (5) Applicant is entitled to a careful, thorough, professional examination of the claims (slip op. at 7, 23, in which the Supreme Court remarked that a poor examination reflected poorly upon the USPTO).

Applicants are not merely claiming boric amine salt, but a particular inorganic acid in the context of a lubricating composition and its components as found in claims 1 and 2. Thus, the mere fact that Jahnke teaches a boric amine salt does not mean that its inclusion in Imai is prima facie obvious. The Examiner must have some articulated reason to support the allegation that it would be obvious to include the corrosion inhibitor of Jahnke in the composition of Imai.

Applicants submit that the Examiner does not have the articulated reasoning required by *KSR* to support the rejection. First, Imai is concerned with providing a lubricant composition for the plastic working of metals that does not require a phosphate undercoating, see col. 2, lines 53-55. As described in the method claims of Imai, the liquid lubricant is applied to the material to be worked and then dried.

Imai says nothing about the need for corrosion inhibitors nor even mentions the word "corrosion."

In making the rejection, the Examiner points to the need for corrosion inhibitors in the context of Jahnke and uses this context as grounds for modifying Imai. The problem with this approach is that the context of Jahnke is not the same as Imai. Jahnke is concerned with aqueous systems, e.g., machining fluids or hydraulic fluids, and the problems of corrosion that occur in these systems. Corrosion inhibitors for these systems are already known and Jahnke devises an improved one that uses boric acid as part of the corrosion inhibitor. The flaw in the rejection is the Examiner's conclusion that the need to improve corrosion by using a corrosion inhibitor in an aqueous machining fluid or hydraulic fluid, i.e., the context of Jahnke, applies to the liquid lubricating composition of Imai that is formed and then dried on a metal to be worked. The problems of Jahnke are totally unrelated to the metal coating of Imai and the Examiner's reasoning to support the rejection is improper. In fact, the Examiner does not have a reason to use the corrosion inhibitor of Jahnke in the metal coating liquid lubricant of Imai and the rejection must be withdrawn. The Examiner is engaging in hindsight to draw the conclusion of obviousness, using Applicants' invention as a teaching template rather than the prior art.

In addition, the use of the extreme pressure additive in Imai would be considered by one of skill in the art to be one that is not only **not corrosion inhibiting** but purposely corroding the surface of the metal to be worked. Thus, Imai teaches away from the modification proposed by the Examiner and this teaching away is further substantiation that the rejection is flawed and must be withdrawn.

Another argument is that the invention is not merely the addition of a corrosion inhibitor to the composition of Imai. In the invention, the boric acid amine salt is used

for attaining both high temperature lubricity and low temperature washability. This purpose is not found whatsoever in the teachings of Jahnke. Thus, one of skill in the art would not be taught to acid a boric amine salt to Imai to achieve the invention based on the teachings of Jahnke.

Yet another argument is that the range of the inorganic acid in claims 1 and 2 is set at 0.5 to 5.0% for a reason. This reasoning is described in paragraph [0062] of Applicants' published patent application. In this paragraph, the inorganic acid amine salt is used to make washing of the coating easier, even in the presence of the synthetic resin, which by itself contributes to easier washing. The washability is based on the lower content of 0.5% and the prevention of deterioration in water resistance at high temperature dictates the upper limit of 5.0%.

This range is nowhere to be found in Jahnke. In col. 7, lines 23-27, Jahnke states:

> Generally a corrosion-inhibiting amount is at least as much as 0.01% weight percent of the system and as much as up to the saturation point of the inhibitor salt(s) in the aqueous system.

This means that the corrosion inhibitor of Jahnke can be added to the composition in either extremely small amounts or up to extremely large amounts as long as the saturation point of the corrosion inhibitor is not exceeded. Thus, the affect of the invention in terms of washability and high temperature lubricity is not suggested at all in Jahnke and the range of the claimed inorganic acid amine salt cannot be derived from Jahnke. Put another way, one of skill in the art cannot get to the claimed range of the inorganic acid amine salt based on Jahnke's disclosure.

Applicants also argue that the rejection based on Bott is rebutted. In the present invention, a vinyl acetate polymer emulsion polymerized with protective colloid is used in the lubricant composition. The reason for this use is that the vinyl acetate polymer emulsion in combination with the inorganic acid amine salt produces excellent water resistance at 80 °C or more and water washability at below 40 °C, see paragraph [0039] of the application. These properties can be found in claims 9 and 15.

Although Bott teaches an emulsion polymerization of vinyl acetate stabilized by a protective colloid, Bott does not teach or suggest the unexpected benefits attained by the invention. In the rejection, the Examiner concludes that it would be obvious to employ the emulsion polymerization of Bott on the vinyl acetate of Imai for stabilization. Even if Applicants concede that the Examiner has established a *prima facie* case of obviousness in this regard, the obviousness is rebutted in the context of the invention. That is, Applicants have discovered unexpected improvements when the synthetic resin is the particularly claimed vinyl acetate polymer and this particular polymer is used in connection with the claimed inorganic acid amine salt.

The Examiner's attention is directed to Tables 4-7 of the specification, which compares various compositions of the invention to comparative examples. It can be seen that comparative examples that do not have the claimed amount of synthetic resin in combination with the claimed amount of inorganic acid amine salt have poor properties. Comparative examples 10 and 11 have the claimed amount of resin but no amine salt and performance is poor. Comparative example 3 shows that too little amine salt also results in poor performance. As important, comparative example 7 shows a non-polymerized resin with the claimed amounts of solid lubricant and amine

salt, but this example had poor performance as seen from Table 7. This evidence is a rebuttal of the allegation that it would be obvious to use the resin of Bott in Imai.

Applicants submit the evidence is sufficient for claims 1 and 2. However, if the Examiner were to criticize Applicants' arguments that the improvements are not found in the claims, claims 9 and 15 set forth the improvements in washability and water resistance. Thus, such criticism would not apply to these claims and these claims would surely be allowable over the prior art.

Moreover, this evidence is a rebuttal of all of the rejections in that unexpected improvements are shown by the combination of the inorganic acid amine salt and its range, the range of the solid lubricant, and the claimed synthetic resin and its claimed range. Thus, any *prima facie* case of obviousness that may be made by the combined prior art is effectively rebutted and the rejections of record must be withdrawn.

To recap, Applicants submit that the rejection based on Imai, Bott, Papay, and Jahnke is improper since a *prima facie* case of obviousness does not exist. The Examiner does not have the proper reasoning to modify Imai in the fashion set out in the rejection. In addition, the reliance on Bott is rebutted by the unexpected improvements set out in the specification. Further, these unexpected benefits are sufficient to rebut the entire rejection such that it should be withdrawn.

Accordingly, the Examiner is respectfully requested to examine this application and pass all pending claims onto issuance.

If the Examiner believes that an interview would be helpful in expediting the allowance of this application, the Examiner is requested to telephone the undersigned at 202-835-1753.

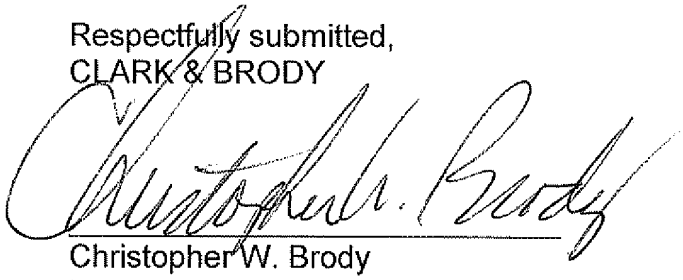
The above constitutes a complete response to all issues raised in the Office Action dated December 21, 2009.

Again, reconsideration and allowance of this application is respectfully requested.

Applicants respectfully submit that there is no fee required for this submission.

Please charge any fee deficiency or credit any overpayment to Deposit Account No. 50-1088.

Respectfully submitted,
CLARK & BRODY



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Docket No.: 12137-0003
Date: MAR 18 2010